

### ABSTRACT

An efficient system and method for managing reads and writes on a bi-directional bus to optimize bus performance while avoiding bus contention and avoiding read/write starvation. In particular, by intelligently managing reads and writes on a bi-directional bus, bus latency can be reduced while still ensuring no bus contention or read/write starvation. This is accomplished by utilizing bus streaming control logic, separate queues for reads and writes, and a simple 2 to 1 mux.